

**DISPOSABLE TOILET BRUSH**

**SPECIFICATION**

**CROSS REFERENCE TO RELATED APPLICATION**

This application is a nonprovisional application  
5 corresponding to Ser. No. 60/399,731 filed 30 July 2002.

**FIELD OF THE INVENTION**

Our present invention relates to a disposable toilet brush and, more particularly, to a toilet brush intended for a single use and which can be disposed of entirely after such use.

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**BACKGROUND OF THE INVENTION**

There are a variety of toilet cleaner implements, e.g. those described in U.S. Patents 5,010,615, 5,373,599, 5,488,748, 5,630,243 and 5,888,002 in which handle structures or the like have cleaning portions fitted to them and which are intended to 15 be used to clean the toilet bowl and/or the rim of the toilet. As far as we are aware, none of those brushes or any other toilet cleaning brush in common use is intended as a single use implement or is capable of being disposed of completely without problems. Where the handle is of plastic, recycling of that 20 handle is required and in most instances, the handle is so costly that multiple use is intended. While a cleaning portion of the

implement may be disposed of, the handle is retained and usually fitted to another cleaning member.

#### OBJECTS OF THE INVENTION

The principal object of the present invention is to provide a toilet brush which is fully disposable and hence capable of single use and can then be disposed of in an environmentally sound manner.

Another object of the invention is to provide a toilet brush which is more sanitary in use than conventional toilet brushes and solves problems detailed previously.

It is also an object of the invention to provide a package which includes an improved toilet cleaning implement.

#### SUMMARY OF THE INVENTION

These objects and others which will become apparent hereinafter are attained, in accordance with the invention in a toilet brush which comprises:

a cardboard tube; and

a open-cell sponge formed with a plurality of ribs fitted on an end of the cardboard tube.

In accordance with the invention, the entire brush is disposable in that the handle consists of a cardboard tube which is fitted into the cleaning sponge of the open-cell plastic <sup>or foam</sup> type and which is formed with a multiplicity of angularly-spaced ribs. The sponge itself may be formed on a hollow tube adapted to

receive the brush and can either hug the tube with sufficient strength to prevent the sponge from pulling loose during single use or is attached to the tube by an adhesive.

5 The package of the invention comprises a pouch of a packaging material and two fully disposable toilet brushes in the pouch, each of the fully disposable toilet brushes consisting of a cardboard tube, and a open-cell sponge formed with a plurality of ribs fitted on an end of the cardboard tube.

#### **BRIEF DESCRIPTION OF THE DRAWING**

10 The above and other objects, features, and advantages will become more readily apparent from the following description, reference being made to the accompanying drawing in which:

FIG. 1 is an elevational view of a toilet brush in accordance with the invention;

15 FIG. 2 is an enlarged cross sectional view taken along the line II-II of FIG. 1;

FIG. 3 is an enlarged elevational view of the brush end of the implement; and

20 FIG. 4 is a diagrammatic illustration of a package according to the invention.

#### **SPECIFIC DESCRIPTION**

A brush according to the invention is shown in the accompanying drawing and comprises the cardboard tube 10 which is fitted into the open cell sponge 11 which has a hole 12 for that

purpose. The sponge is formed with a plurality, e.g. 6 or 8 ribs 13 with V-section grooves 14 between these ribs and preferably so shaped that the flanks of the ribs are parallel to one another.

The overall length of the toilet-cleaning implement may 5 be say 13 to 16 inches and the sponge may have a length of say 1½ to 2 inches and a diameter of 2½ to 3 inches. The rib height may be about 1 inch and the tube can be of a diameter say of ½ inch.

Two such implements can be provided in a marketing package and, for sanitary reasons, the cardboard of the handle 10 can be designed to deteriorate after the single use, e.g. by losing its integrity in contact with the water of the toilet bowl so that reuse is impossible.

A layer of adhesive 15 may be provided, if desired, between the cardboard tube and the wall of the hole 12.

15 In FIG. 4 we have shown a package 16 which may be a pouch of a transparent plastic material 17, with or without a supporting card, containing two brushes 18 and 19 as shown in FIGS. 1-3. The pouch may have a tear-off region 20 to facilitate opening. As each toilet brush is used, it may be disposed of 20 simply by throwing it into a waste container for normal trash pickup.